37. The computer readable medium of claim 35, wherein the maximized efficiency is determined by minimizing a total time for replacing punches in said punch supporting member and dies in said die supporting member.

38. The computer readable medium of claim 35, wherein the maximized efficiency is determined by minimizing a total number of punches required to punch a desired hole.---

REMARKS

In the above-noted Official Action, the Examiner made final the Restriction Requirement originally set forth in an Official Action dated August 8, 2001. Claim 14 was rejected under 35 U.S.C. §112, second paragraph as indefinite. Claim 14 was additionally rejected under 35 U.S.C. §103(a) over ANJO (U.S. Patent No. 5,046,014).

Upon entry of the present amendment, claim 14 will have been amended and claims 21-38 will have been added. The instant specification provides adequate and sufficient support for the amendment to the specification as well as the claims respectfully presented for entry. In particular, the features recited in claims 14 and 21-38 are disclosed at, for example page 22, lines 3-15, page 24, lines 2-5, and page 32, lines 4-18. Accordingly, Applicants submit that entry of the above noted claims does not add new matter into the application.

With respect to the rejection of claim 14 under 35 U.S.C. §112, second paragraph, Applicants have amended claim 14 to better recite the invention, as well as to correct informalities. In particular, Applicants have deleted numerals corresponding to labels from the drawings. Furthermore, claim 14 has been amended to recite a punch and die program that is prepared such that an allocation of a punch and a die for a workplace region to be processed minimizes the number of times the punches and dies need replacement.

A detailed explanation of the operation of the present invention is set forth in the specification at page 22, lines 3-15 and page 24, lines 2-5. In particular, the time spent replacing punches and dies in a turret is inefficient. Therefore, the present invention as set forth in claim 14 uses identification media for each punch and die in order to prepare an efficient program that minimizes the total number of replacements.

Additionally, claim 25 recites that the total time for replacing punches and dies is minimized. Claim 30 recites that a total number of punches required to punch a desired hole is minimized. Claim 35 recites that an efficiency is maximized.

The dependent claims 21-24, 26-29 and 31-34 further recite that the program preparing method maximizes an efficiency, as well as several factors that are offset against the factor set forth in the respective independent claims from which they depend when maximizing an efficiency, including maximizing a measure of the flatness of the

finished surface, minimizing a tact time, and minimizing a number of punches required to obtain a fine finish. Claim 35 recites a computer readable medium that stores a program that maximizes efficiency when allotting punches and dies to the punch and dies supporting members. Claims 36-38 recite efficiency features corresponding to those set forth in claims 14, 25 and 30.

In contrast to the present invention, ANJO, which was applied by the Examiner in rejecting original claim 14 under 35 U.S.C. §103(a), does not disclose or suggest a method using the identification media in the manner recited in the claims of the present invention. In particular, ANJO does not disclose or suggest preparing a program by allotting a punch and a die such that a total number of replacements of punches in a punch supporting member and dies in a die supporting member is minimized, as is recited in independent claim 14 of the present application. Nor does ANJO disclose or suggest a program that minimizes an amount of replacement time or a number of punches required to punch a desired hole, as is set forth in independent claims 25 and 30 of the present application. Furthermore, ANJO does not disclose maximizing an efficiency in any way, let alone an efficiency accounting for the "offset" factors recited in the various dependent claims of the present application.

Accordingly, the application of the identification media and the punch and die identification medium reader is not disclosed by ANJO. Therefore, Applicants

respectfully submit that amended claim 14 and the newly added claims are patentable over the prior art of record.

Accordingly, Applicants submit that a clear basis exists for a finding of patentability of the pending claims included in the present amendment. Applicants respectfully request an indication to such effect.

SUMMARY AND CONCLUSION

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so. Applicants have amended claims and added new claims to better recite the invention.

Applicants have discussed the disclosure of the reference relied upon by the Examiner and have pointed out specific features of the claims not disclosed by the reference. Applicants have further discussed the features recited in Applicants' claims and have pointed out how these features are not taught, disclosed nor rendered obvious by the disclosure of the reference cited by the Examiner.

Accordingly, Applicants have provided a clear evidentiary basis supporting the patentability of all the claims pending in the present application and respectfully request an indication to such effect, in due course.

Any amendments to existing claims and new claims which have been added in this amendment, and which have not been specifically noted to overcome a rejection based

upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should there be any questions, the Examiner is invited to contact the undersigned at the below listed number.

Respectfully submitted,
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MARKED UP COPY OF AMENDED CLAIMS

14. A method of preparing a program for a punch press, wherein

said punch press is provided with a punch supporting member [(22)] that supports a plurality of punches [(26)] and a die supporting member [(24)] that supports a plurality of dies [(28)] corresponding to said punches;

identification media [(34) and (36)] for identifying each tool are attached respectively on each of said punches and each of said dies;

said punch press is provided with a punch identification medium reader [(38)] for reading out a punch identification information from a punch identification medium attached to said punch and a die identification medium reader [(40)] for reading out a die identification information from a die identification medium attached to said die;

wherein said program preparing method [prepare] prepares said program by feeding a punch identification information and a die identification information from said respective identification medium readers back to [a automatically] an automatic programming apparatus [(78)] and by allotting a punch existing on said punch supporting member and a die existing on said die supporting member to a [processing] workplace region to be processed [as far as possible with reference to the feedback signal] such that a total number of replacements of punches in said punch supporting member and dies in said die supporting member is minimized.